Industrial Disease Standards Panel

Comité des normes en matière de maladies professionnelles

ANNUAL REPORT
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INDUSTRIAL DISEASE STANDARDS PANEL

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INDUSTRIAL DISEASE STANDARDS PANEL

ANNUAL REPORT

1986/87

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Ontario
Ministry of
Labour

Ministère
du Travail
de l'Ontario

Industrial Disease
Standards Panel

Comité des normes
en matière de maladies
professionelles

10 King Street East
7th Floor
Toronto, Ontario
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December 9, 1987

The Honourable Gregory Sorbara
Minister of Labour
400 University Avenue
14th Floor
Toronto, Ontario
M7A 1T7

Dear Mr. Sorbara:

It gives me great pleasure to submit to you the first annual report of the Industrial Disease Standards Panel.

Respectfully,

James M. Ham

James M. Ham
Chairman

JMH/med

Encl.

SECTION A

ORIGIN AND MANDATE OF THE INDUSTRIAL DISEASE STANDARDS PANEL

The establishment of an independent panel or board with the statutory responsibility and authority not only to initiate investigations of possible industrial disease, but also to refer its findings to the Workers' Compensation Board on receipt of which the Board would be required to act, was recommended by Weiler in his studies of workers' compensation in Ontario conducted early in this decade.[1,2] Weiler proposed the name Industrial Disease Standards Panel for this body. The Royal Commission on Matters of Health and Safety Arising from the Use of Asbestos in Ontario also recommended the creation of an Advisory Council on Industrial Disease Policy to have similar authority.[3]

Amendments to the *Workers' Compensation Act*, given Royal assent on December 14, 1984[4], provided the statutory basis for the establishment of an Industrial Disease Standards Panel[5] for which this document is the first annual report to the Minister of Labour.

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1 Weiler, Paul C. *Reshaping Workers' Compensation in Ontario*. Report to the Minister of Labour, Province of Ontario, November, 1980.

2 Weiler, Paul C. *Protecting the Worker from Disability: Challenges for the Eighties*. Report to the Minister of Labour, Province of Ontario, April, 1983; Section 2G.

3 Dupre, Stefan C., Chairman, et al. *Report of the Royal Commission on Matters of Health and Safety Arising from the Use of Asbestos in Ontario*, 1984. Ontario Ministry of the Attorney General.

4 *Workers' Compensation Amendment Act, 1984 (No. 2). Ch. 58.* Section 32

5 *Ibid.*, S. 32, ss. 86p.

The statutory mandate of the Panel is:[6]

a) to investigate possible industrial diseases;

b) to make findings as to whether a probable connection exists between a disease and an industrial process, trade or occupation in Ontario;

c) to create, develop and revise criteria for the evaluation of claims respecting industrial disease; and

d) to advise on eligibility rules regarding compensation for claims respecting industrial diseases.

The problem of identifying the occupational origins of diseases has caused difficulties in developing systems of workers' compensation since their inception. Whereas most accidents of trauma occur at a readily identifiable time and place, and cause is not usually at issue for purposes of compensation, a disease such as lung cancer, occurring in excess[7], for example among uranium miners, characteristically appears some years after first exposure to a mining environment with ionizing radiation. The issue of determination is complicated further by the fact that lung cancer may be initiated or promoted by many carcinogens; and by the fact that it commonly occurs in the general population.

Therefore the task of determining whether or not the unusual occurrence of a disease among a worker population is due to workplace exposures from substances or agents is extremely complex. Accurate and complete historical records of the exposure of individual workers to substances or agents that may be injurious to their health are rarely available. In this regard, the Panel is directed to make findings of *probable connection* which establish a causal link between a disease and a work environment.

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6 *Ibid.*, ss. 86p(7).

7 The excess number of disease cases is determined through comparisons with the disease's natural rate of occurrence in an appropriately matched reference group, such as the general population, not exposed to the causal agent.

In the Panel's view, our health care system is overly dominated by a treatment and curative perspective which overshadows the much weaker public health philosophy of concern for cause and prevention. The ramifications of this curative perspective are, on the one hand, that attending physicians may not recognize the work relatedness of a given disease and, on the other, that government and academic administrations may not recognize the need for appropriate epidemiological research of worker populations. The human resources committed to epidemiology and industrial clinical medicine, in Ontario and elsewhere, are far too inadequate. Weiler[8], Ison[9] and Landrigan[10] have all reviewed the many scientific and institutional circumstances that combine to limit the recognition and compensation of industrial disease.

In Ontario, the recognition of industrial disease began with the landmark report of Meredith in 1914[11] which provided the historical basis for the present *Workers' Compensation Act*. In the Meredith report, a Schedule 3 provided eligibility for compensation by listing six diseases.[12]

The significance of a Schedule of industrial disease derives from the fact that, when a worker is diagnosed as suffering from a disease listed in the Schedule *and* has been employed in an occupation designated opposite the disease in the Schedule, the law creates a rebuttable presumption that the disease is due to the nature of the employment. Through the operation of a Schedule, the burden of proving that the disease is due to the workplace is shifted away

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8 Weiler, *Op. Cit.*, April 1983; Section 2, pp. 15-52.

9 Ison, Terence G. *Workers' Compensation in Canada*. Toronto: Butterworths 1983, ch. 3, pp. 26-37.

10 Landrigan, Philip J. and Rosenstock, L. *Occupational Health: The Intersection Between Clinical Medicine and Public Health*. American Review of Public Health, 1986, No. 7, pp. 337-56.

11 Meredith, The Hon. Sir William Ralph, Final Report on Laws Relating to the Liability of Employers. *Workmen's Compensation Act*, R.S.O. 1914, c. 146.

12 Anthrax, lead poisoning, mercury poisoning, phosphorus poisoning, arsenic poisoning and ankylastomiasis.

from the worker to the employer. The notion of rebuttability means that the employer still has recourse to appeal a decision if he believes the contrary can be proved, that is, that workplace exposures were not responsible for the disease.

By 1944, Schedule 3 in the Act had grown to include 15 main entries with a number of sub-entries relating to poisons. The current Schedule 3 has not substantially changed.

The revised *Workers' Compensation Act*[13] makes provision also for a Schedule 4 of industrial diseases for which irrebuttable presumption would apply. No entries have as yet been made in this schedule.

The Board has not recently chosen to seek the approval of the Lieutenant Governor in Council to extend Schedule 3 in addressing new disease issues.

Rather, it has adopted what it calls policy guidelines for specific circumstances of disease. These guidelines are closely related to eligibility rules as referred to in part (d) of the statutory mandate of the Panel.[14] When a claimant's case is judged, through the Board's adjudicatory processes, to fall within the relevant guidelines, it is accepted.

The Panel understands that the Board's intent is that all other cases are examined without prejudice on a case-by-case basis; and that to these other cases is extended an associated Board policy of 'benefit of doubt'.[15] Weiler was concerned that the failure of a case to fall within a set of guidelines should not create an automatic negative presumption against the case. The Panel shares this concern.

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13 *Op. Cit.*, December 1984, Section 122(9A).

14 An example for Asbestosis is given in Appendix A of this report. All current guidelines are published in the Board's Manual of Policy and Administration (see the Claims Adjudication Branch Manual, Document No. 33.13.21).

15 Benefit of Doubt Policy, W.C.B. Manual of Policy and Administration (Claims Adjudication Branch Manual, Document 33.2.1).

The statutory mandate of the Panel as cited empowers it to investigate possible industrial disease. From such investigations then, there flow findings of *probable connection*. Such findings are specific and relate to groups of workers engaged in particular occupations.

Having established findings of probable connection, the Panel's subsequent task, as stated in the legislative mandate, is to create criteria for evaluating individual claims and to propose eligibility rules to enable case-by-case adjudication.

SECTION B

THE PANEL

The Panel of up to nine Members, including a Chairman and Vice Chairman, is appointed by the Lieutenant Governor in Council. Panel Members are to include persons representative of the public and of the scientific community and technical and professional persons.[16] The appointments of the initial Members of the Panel are listed in Table 1 (page 11). Meetings are held monthly or as necessary to the agenda of work. The first Meeting of the Panel was held on June 24, 1986.

The Panel has a small administrative and research staff of six whose positions are listed in Table 2 (page 11). The senior administrative position is that of Executive Administrator and Secretary to the Panel. An Evidentiary Centre on industrial disease is being developed which provides ready access for the Members, parties of interest and the general public to the scientific and technical evidence on the findings and related work of the Panel.

To assist it in conducting investigations, the Panel appoints as Special Panels small working groups of specialists in such fields as toxicology, clinical medicine, epidemiology and industrial processes to prepare reports for its consideration.[17]

In conducting its work, the Panel is free to determine its own priorities, practice and procedure and is not subject to the *Statutory Powers Procedure Act*.[18] As a statutory body under Part 2 of the *Workers' Compensation Act* the Panel and its staff are bound by the conditions of confidentiality that apply to the Board and in turn are given the privilege of access to information that the Board possesses.[19]

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16 *Workers' Compensation Amendment Act, 1984, (No. 2). Ch. 58*, Section 86p (2, 3).

17 *Ibid.*, Section 86p (8).

18 *Ibid.*, Section 86p (9).

19 *Ibid.*, Section 102 (1).

The Panel reports its findings to the Board which in turn is required to publish these in the Ontario Gazette, to invite public comment, and then to report in the Gazette whether it intends to accept, amend or reject the findings of the Panel. The Board is further required to publish in the Ontario Gazette the reasons for accepting or rejecting the findings of the Panel.[20] It is this process of finding by the Panel, publication and action by the Board which gives the Panel its significance.

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20 *Ibid.*, Section 86p (10-14).

TABLE 1: PANEL MEMBERSHIP

Panel Members	*Affiliation*	*Appointment*
Mr. Ralph Barford	Valleydene Corporation, Toronto	May 7, 1986 to May 6, 1987
Dr. John Chong	McMaster University	May 7, 1986 to May 6, 1989
Dr. Stefan Dupre (Chairman Pro Tempore)	University of Toronto	May 20, 1987 to September 7, 1987
Mr. Jean Gagnon	United Steel Workers of America, Sudbury	May 28, 1986 to May 27, 1989
Dr. Edward Gibson	Dofasco Inc., Hamilton	May 7, 1986 to May 6, 1989
Dr. James Ham (Chairman)	University of Toronto	December 4, 1985 to December 3, 1988
Ms. Linda Jolley	Ontario Federation of Labour, Toronto	May 7, 1986 to May 6, 1989
Mrs. Jane LeVay	Sensenbrenner Hospital, Kapuskasing	May 28, 1986 to May 27, 1989
Dr. Anthony Miller	University of Toronto	March 25, 1987 to March 24, 1990
Dr. David Muir (Vice Chairman)	McMaster University	April 30, 1986 to May 1, 1989
Mr. Robert Stevens	GSW Inc., Toronto	April 29, 1987 to April 28, 1990

TABLE 2: PANEL STAFF

Panel Staff	*Title*
Dr. James Heller	Executive Administrator and Secretary
Ms. Gaylene Pron	Senior Research Officer
Mr. Paul Gallina	Research Officer
Mr. James MacRae	Research Officer
Mr. John Gerritsen	Administrative/Research Assistant
Mrs. Dorothy Plummer	Secretary
Mrs. Kathleen Brown	Administrative Officer (Secondment)

SECTION C

AGENDA OF INVESTIGATION

With the establishment of the Panel membership through Orders-In-Council by the middle of 1986, the Workers' Compensation Board began to refer issues of concern for the Panel's advice. Table 3 provides a list of these referrals through June, 1987. These referrals have engaged the great majority of the attention of the Panel during its first year of operation.

In early 1987, the Panel established a Task Group to define initiatives the Panel should itself undertake. Included among these initiatives is the intention to develop a map of possible industrial disease among Ontario workers. The creation of such a map should encourage research into and development of objective indicators of the extent of real industrial disease in this province. The map will also serve to imbed the notion of industrial workers' health within the context of public health.

Each referral by the Board has presented a set of questions relating to a specific issue. Where the issue concerns particular exposed populations of workers in Ontario, these questions are made known to the parties of interest in the course of the Panel's investigations. They are contained in all Reports of Findings. The issues raised by the referrals in Table 3 are of four kinds:

i) generic criteria for assessing evidence of possible industrial disease (Item 4);

ii) a methodological question concerning the use of epidemiological evidence of excess disease in worker populations, namely the significance of the so-called *healthy worker effect* (Item 3);

iii) the assessment of specific evidence of possible industrial disease where no eligibility rules have as yet been adopted by the Board (Items 2, 5, 7);

iv) the review of existing guidelines (eligibility rules) for recognized industrial disease in the light of currently available evidence (Items 1,6).

Reports of Findings by the Panel in these matters are given in Section E.

TABLE 3: ISSUES OF INDUSTRIAL DISEASE

REFERRED BY THE BOARD TO THE PANEL: 1986-87

Item	*Referral Date*	*Industrial Disease (or Issue)*	*Related Occupations*	*Request*
1.	*17/02/86*	*Lung Cancer*	*Uranium Mining*	*To review current guidelines for adjudication of case claims*
2.	*27/05/86*	*Various Cancers*	*Workers exposed to PCBs*	*To assess evidence and make findings*
3.	*12/06/86*	*All industrial diseases*	*All working populations*	*To advise on the Healthy Worker Effect*
4.	*8/08/86*	*All industrial diseases*	*All working populations*	*To advise on criteria for assessing evidence*
5.	*18/08/86*	*Lung and Stomach Cancers*	*Gold Mining Industry*	*To assess evidence and make findings*
6.	*5/03/87*	*Asbestos-related diseases*	*Workers exposed to asbestos*	*To review guidelines for compensation*
7.	*24/06/87*	*Breast and Gynaeco-logical Cancers*	*594 Workers in a lamp-making plant*	*To assess evidence of possible industrial disease*

SECTION D

APPROACH TO PANEL'S STATUTORY MANDATE

With respect to Item 4 in Table 3 of the referrals from the Board, the following broad questions were posed to the Panel.

"As the Board proceeds in the assessment of its own compensation criteria, we would also appreciate receiving advice from the Panel in relation to several broad policy issues. These issues may be summarized as follows:

1. How much and what kind of evidence is required before the Board might reasonably promulgate compensation criteria to recognize the link between workplace exposures and a particular disease state?

   For example, would it be appropriate to base compensation criteria on a single study provided that the study identifies:

   a) a strong association between exposure to an agent and the development of a disease;

   b) a clear dose-response relationship and;

   c) an association which is statistically unlikely to be attributable to chance and which is free from identified bias and confounding factors?

   In the alternative, should there exist multiple, concordant studies of this nature before a condition is recognized as compensable?

2. What criteria should be employed to evaluate the findings of epidemiologic studies which are under consideration in the assessment of causal relationships?

We would particularly appreciate your advice regarding the assessment of the strength of the association as evidenced by the dose-response relationship or the magnitude of the standard mortality ratio (SMR) observed (and the confidence limits associated with these values).

3. Where the mortality outcome is cancer, what eligibility rules (for example, route of exposure, duration and intensity of exposure, appropriate latency period) should be fulfilled in order for entitlement to be accepted?

4. Should the compensation criteria for occupational diseases developed by the Board be founded upon a statutory schedule, a policy guideline or on a case by case adjudication basis?

5. Section 3(4) of the *Workers' Compensation Act* specifies that:

'In determining any claim under this Act, the decision shall be made in accordance with the real merits and justice of the case and where it is not practicable to determine an issue because the evidence for or against the issue is approximately equal in weight, the issue shall be resolved in favour of the claimant.'

Should the provisions of Section 3(4) affect the way in which the scientific evidence is evaluated in determining causation for compensation purposes or should scientific issues be assessed separately from questions of entitlement?"

Responses to the foregoing questions are deeply related to the approach the Panel adopts to its statutory mandate. For the purposes of this first Annual Report, the following elements of its intended approach are set out.

The ground for carrying out the Panel's mandate lies in the understanding that can be attained of:

a) the environmental conditions of occupations;

b) the toxic effects of workplace substances and physical agents;

c) the diagnosis of disease that may be work-related;

d) impairments attributable to disease and its precursors;

e) procedures for establishing connections between work exposures and state of disease;

f) procedures for assessing work-related disability and for deciding for or against the compensation of cases of disease.

All of the foregoing ground is pertinent to the Panel's investigations and findings.

In reflecting on the issue of industrial disease, it is important to observe that there is typically a natural history of transition from relative normalcy to disease. For example, a worker who, over a period of time, comes to be recognized as suffering, for example, from lead poisoning, may be considered to have passed through several states on the path from normalcy to the disease and its sequelae. In the first stage there may be evidence of *biological abnormality* in the form of abnormal concentrations of haemoglobin precursors or elevated levels of lead in the blood not accompanied by any evident symptoms of illness. Toxicological models may assist in interpreting the relation of this stage to subsequent ones.

The next stage may be called the *first identifiable symptomatic consequence* manifested, for example, in non-specific character by lack of appetite. There follows the stage of *diagnosed illness* represented perhaps by a group of symptoms such as lack of appetite, irritability and inability to concentrate. Finally, there is the stage of *recognized disease* with the presentation of fulminate poisoning. The boundaries between the foregoing stages are not generally clearcut. Issues raised by the existence of stages of transition

include that of removal from work because of diagnosed impairment and that of the diagnosis of disease. Our knowledge of identifiable states that are precursors to a disease such as lung cancer is very limited. Currently this subject is a topic of much research and debate.

There are three types of knowledge pertinent to the understanding of industrial disease:

1. The first type derives from the cumulative individual and collective professional experience of occupational physicians. These physicians treat workers and are sensitive to the signs and symptoms which may signal the work relatedness of a given clinical condition. This clinical acumen is acquired through the experience gained from culling occupational histories and the concomitant knowledge of the toxicity and pathogenesis of substances and agents encountered at work. Knowledge of toxicity in human beings has in the first instance been acquired from direct observation;

2. The second type of knowledge derives from the methods of epidemiology by which the observed disease incidence in a selected worker population is compared with the corresponding incidence in a matched reference population. If there is excess disease in the worker population it is considered to be attributable to the conditions of work that are not shared by the reference group; and

3. The third type refers to the contributions in knowledge from basic and applied science. Since it is intrinsically unethical to impose burdens of disease on human beings for the purpose of delineating bounds of toxicity, resort has been made to studies of animal and bacterial populations and to a variety of tests involving cellular tissue. Thus, animal studies have become a major source of information on the toxic potential of substances for humans. They provide

> the basis for understanding the mechanisms of pathogenesis and of toxicological effects. In addition, basic knowledge in chemistry of the molecular structure and bonds associated with substances has helped to identify families of likely toxic substances. Also, tests designed to detect mutagenic changes (e.g. in artificial strains of bacteria) are used as possible indicators of the carcinogenicity of substances. Given the biological differences between animals and man, it is not clear at present how studies of animals can properly be used to infer toxic outcomes in humans for purposes of workers' compensation.

In conducting its work and formulating its findings, the Panel intends to draw on all available sources of scientific knowledge that can provide insight into the difficult task of making sound findings of probable connection with the conditions of work not only on a population basis but also on an individual basis through eligibility rules which further the fair and timely adjudication of case claims. In making its findings, the Panel will always be required to do so on the basis of the limited knowledge available in each specific circumstance.

In its work the Panel must be guided by the general provisions of Part 1 of the *Workers' Compensation Act* under which the Panel's statutory mandate as specified in Section 86p falls. In this regard, the Act states in Section 122(1) that:

> "Where a worker suffers from an industrial disease and is thereby disabled...and the disease is due to the nature of any employment...the worker is or his dependants are entitled to compensation... ."

Further, in Section 3(4) the Act states that:

> "In determining any claim...the decision shall be made in accordance with the real merits and justice of the case and where it is not practicable to determine the issue because the evidence for or against the issue is approximately equal

> in weight, the issue shall be resolved in favour of the claimant... ."

And as noted earlier in Section 86p 7(b):

> "It shall be the function of the Panel to make findings as to whether a probable connection exists between a disease and an individual process, trade or occupation in Ontario."

In making such findings, the Panel will test its judgements with the following question:

> "Is there a sound scientific basis for establishing that the workplace is probably connected with a burden of disease in workers employed in particular types of work?"

A burden of industrial disease among workers means simply that there are cases of disease which would not occur among the workers in the absence of conditions characteristic of their occupation. In making any finding the Panel will document clearly the evidentiary basis for its judgement.

The finding of a *probable connection* between a disease and a group of workers in an occupation does not resolve the critical question of which cases of the disease, if not all of them, are to be considered eligible for compensation. The Panel is directed to prepare *criteria* for the evaluation of case claims and to recommend to the Board either *eligibility rules* or the scheduling of the disease (in a Schedule 3 or 4). Given that its first mandated task is to investigate and to make a finding concerning the probable connection for a population of workers, the Panel interprets its next task as that of assessing available evidence in such a way as to point to the cases which most likely represent the burden of industrial disease.

In principle, criteria for the evaluation of case claims should enable an adjudicatory assessment to be made of the likelihood or probability of a case being work-related. Typically, such criteria should allow case adjudicators to develop measures (or surrogates) of the probable intensity and duration of toxic exposures for each worker.

Eligibility rules constitute an interpretation of the criteria of evaluation. They are designed to identify the cases that are most probably due to the conditions of work, in a number that bears, on the basis of sound evidence, a generous estimate of the likely excess burden of disease among the group of workers. In simplest terms, eligibility rules should function to identify a set of cases for which there should be an irrebuttable presumption of compensability.

Since the circumstances of each case claim are inherently unique, claims which do not fall directly within eligibility rules deserve to be considered on their merits particularly through the gathering of as complete as possible information on the conditions of a person's work. The failure of a claim to fall directly within eligibility rules must create no presumption against the claim.

Eligibility rules in themselves cannot identify all of the cases that a fair and just process of adjudication will deem to be worthy of compensation.

The foregoing procedures must be followed in each situation. The effectiveness of the Panel in pursuing its mandate will be established by the quality of its findings and the Board's response to them. Section E contains the first finding of the Panel concerning the issue of reported excess lung and stomach cancers among Ontario gold miners.

SECTION E

PANEL FINDINGS

Ontario Gold Mining Industry and Lung and Stomach Cancers

The details on this issue are to be found in the Report of the Panel to the Board.[21] In two earlier studies, Dr. Jan Muller, formerly of the Ministry of Labour and an epidemiologist of international standing, had revealed an apparently significant excess of both lung and stomach cancers among Ontario gold miners. As a consequence, the Board requested (Item 5, Table 3) that the Panel give priority to providing advice about this matter. A Special Panel, led by Dr. Harry S. Shannon from McMaster University, was appointed to conduct an independent review of the evidence and to report to the Panel.

The Special Panel confirmed the appropriateness of using for its epidemiological investigations the data base resident at the Board and known as the Mining Master File (MMF). This rich source of information, and another known as the Model Development File, had been painstakingly assembled over several years by a dedicated group of individuals (including J. Muller, W.C. Wheeler, R. Holden, J.F. Gentleman, G. Suranyi, R. Kusiak, M. Smith and others from the Ministry of Labour, Workers' Compensation Board, Statistics Canada and the University of Waterloo). Together, they comprise an accurate record of employment history for all Ontario miners from the mid-fifties onward.

In the Report from the Special Panel, clear and consistent evidence for the presence of work-related lung cancer among Ontario gold miners was confirmed. Whereas, the evidence concerning stomach cancers was contradictory for reasons discussed below.

Support for the foregoing findings was found in similar studies conducted in Australia, France, South Africa, United States and USSR. Despite different

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21 *Report to the Workers' Compensation Board on the Ontario Gold Mining Industry* (Industrial Disease Standards Panel, Report No. 1, April, 1987).

methodological approaches and definitions, these studies consistently identified an occupational risk for lung cancer among gold miners. On the other hand, there was little evidence in world research linking stomach cancer to gold mining.

Upon acceptance of the Special Panel's report, the Panel proceeded to define criteria for the evaluation of case claims for compensation for lung cancer from gold mining, as well as related eligibility rules and certain associated recommendations.

The subgroup of gold miners most likely to be at risk of work-related lung cancer was identified as follows. Using available information on dust levels in gold mines including the Report of the Royal Commission on the Health and Safety of Workers in Mines, Ontario Mining Association data and qualitative evidence from advisers to the Special Panel, a measure for dust exposure was developed. This measure is based on duration of exposure weighted to reflect dust severity in different time periods. This measure was found to be a biologically consistent indicator of dose in the assessment of the occupational risk of lung cancer. On the other hand, the same direct correlation between weighted gold dust exposure and the risk of stomach cancer was not established. In fact, the estimated relationship for stomach cancer was biologically inconsistent showing decreasing occupational risk for increasing (weighted) dust exposure.

The dust measure adopted by the Panel for its eligibility rule applies an index of dust severity to any given exposure circumstance depending on the time period to reflect historical dust conditions. The measure gives a weight of 4 to pre-1936 exposure years; a weight of 3 to exposure years in 1936-44; a weight of 2 to years in the 1945-54 period; and a weight of 1 to exposure after 1955. The time periods themselves indicate changing ventilation practices and mining technology.[22]

Using this measure, the majority report proposed the following eligibility rule:[23]

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22 *Ibid.*, pp. 5, 16-17, 25-26.

23 *Ibid.*, p. 6.

> That lung cancer among Ontario gold miners in dusty occupations (Report of the Special Panel, Appendix A, Table 5) whose weighted dust exposure is 60 or more be compensated.

In addition, the Panel's Report called for an exhaustive search for all historical cases of lung cancer among gold miners, and noted that individual exposures may have exceeded the average levels that form the basis for formulating the eligibility rule.[24]

The generic criteria for individual case assessment included:[25]

1. geology of a mine (and the varying presence of different hazardous substances);
2. mine design;
3. mine operation and technology;
4. work practices;
5. production levels (and varying exposures therefrom);
6. mine environment (records of conditions);
7. work history (in different job categories);
8. year of start in mining;
9. age at start in mining;
10. individual work history (years in mining and other occupations);
11. personal medical history; and
12. information about other worker populations (and related evidence).

The Panel also recommended the use by the Board of a benefit of doubt policy previously recommended in the Report of the Royal Commission on Matters of Health and Safety Arising From The Use of Asbestos in Ontario.[26]

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24 *Ibid*., p. 6.

25 *Ibid*., pp. 7-9.

26 *Ibid*., p. 7.

A dissent from the majority report of the Panel agreed about a probable connection between Ontario gold mining and lung cancer, but took exception to the estimate of the total burden of excess lung cancer cases contained in the majority report. As an alternative, the dissent proposed that lung cancer and gold mining be entered into Schedule 3 of the *Workers' Compensation Act* "and that lung cancer shall be deemed to have been due to the nature of gold mining unless the contrary is proved".[27]

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27 *Ibid.*, pp. 87-90.

SECTION F

1986/87 FINANCIAL STATEMENT

Through an administrative procedure of the Ministry, expenses for the Panel's operations are charged back to the Workers' Compensation Board. The Panel commenced operations in June of 1986. As a new agency, some expenses were unique to its first fiscal year while others were understated because of the startup. The Panel's expenditures in 1986 were $473,329.23 and are broken down below:

Salaries and Benefits[28]	$144,342.57
Transportation and Communications[29]	28,106.86
Services[30]	194,881.54
Supplies and Equipment[31]	105,998.26
Total	$473,329.23

Footnotes to this table provide some explanation concerning expenses.

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28 **Salaries and Benefits:** In 1986/87, the Panel had a staff of four classified and three unclassified personnel. Due to the lag between start-up time and full staffing, these expenditures are below the expected norm for future years. The Panel spent $12,167.79 on temporary staff in 1986 in large part to fill newly created positions.

29 **Transportation and Communications:** Travel expenses constitute 65 per cent of the total of these expenditures and include travel by Members, staff and consultants. The Panel is designed to represent a cross-section of society. As a consequence, some Members travel great distances to attend Panel functions at the Panel's expense. In addition, agents of the Panel are required to travel internationally to check data sources of studies being used. Communication costs, which include telephone and courier costs, were below the expected future norm.

30 **Services:** Services represent the largest single area of non-salary expenditure (over 59%). Most major expenses are found under this category including: Panel remuneration, consulting services, office rental, maintenance, advertising, data base access costs and all conference, seminar and training expenses. Service expenses are expected to rise in the next year as the Panel projects grow in number and size.

31 **Supplies and Equipment:** The Panel's expenditure on supplies and equipment in 1986 was $105,998.66 of which 82 per cent went to purchase office furniture and data processing equipment. These are typical one-time purchases. At this time, the Panel offices are making extensive use of computer technology.

APPENDIX A

WORKERS' COMPENSATION BOARD GUIDELINE FOR THE ADJUDICATION OF ASBESTOSIS CLAIMS

(Excerpted from the Claims Adjudication Branch Manual, Document No.33.13.21)

General Information:

1. A clear and adequate history of occupational exposure to asbestos must be established.

2. A diagnosis of asbestosis must exist.

3. The Advisory Committee (Advisory Committee on Occupational Chest Diseases) examines referred cases of occupational chest disabilities and reports their findings in detail with recommendations on the degree of functional impairment.

   etc.